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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY, DOCKET NO.	CONFIRMATION NO.
10/511,861	02/08/2005	Stan Nowak	ASEFF.0101	6378
7590 Carsten & Cahoon P.O. Box 802334 Dallas, TX 75380		10/22/2007	EXAMINER BURCH, MELODY M	
			ART UNIT 3683	PAPER NUMBER
			MAIL DATE 10/22/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/511,861

Applicant(s)

NOWAK ET AL.

Examiner

Melody M. Burch

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 9-11 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) 4-7 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 and 9-11 is/are allowed.
- 6) ☒ Claim(s) 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 3633714 to Klaue.

Re: claims 15 and 16. Klaue shows in the figure 5 a fluid cooled brake housing for a brake system that includes friction pads 9,10 and a rotatable element 13,67,68 to be braked, the brake housing comprising a circumferential wall 51 and two axial end walls one shown to the right of the end of the lead line of 74 and the other shown to the left of the end of the lead line of 53 that define a cavity as shown for housing the friction pads and rotatable element, an opening in the at least one of the axial end walls through which a portion of the rotatable element can extend as shown, a fluid flow path 73,75 formed within the circumferential wall such that the fluid flow path is external to the defined cavity as shown, a fluid inlet 73 in fluid communication with the fluid flow path, a fluid outlet 80 in fluid communication with the fluid flow path, a supply of cooling fluid connected to element 73 in fluid communication with the fluid inlet and the fluid outlet, the cooling fluid flowing from the fluid inlet through the fluid flow path to the fluid outlet thereby cooling the entire brake housing, and a seal

means 71 for sealing the opening such that the cavity can be at least partially filled with a volume of lubricating fluid to provide a wet brake housing.

Re: claim 17. Klaue shows in figure 5 the limitation wherein the fluid flow path includes a plurality of parallel channels 75 and 78 extending between the fluid inlet and the fluid outlet.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klaue in view of US Patent 5445242 to Pogorzelski et al.

Re: claim 19. Klaue is silent with regards to how the cooling fluid is circulated.

Pogorzelski et al. teach in figure 1 a pump 94 for pumping the cooling fluid through the supply and the fluid flow path.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified one of the ends of the fluid inlet of Klaue, to have been connected to a pump, as taught by Pogorzelski et al., in order to provide a means of circulating the cooling fluid through the cooling system in order to effectively prevent overheating of the brake device.

Re: claim 18. Klaue is silent with regards to a heat exchanger being in fluid communication with the supply for cooling the cooling fluid.

Pogorzelski et al. teach in figure 1 a brake device including a heat exchanger 96 in fluid communication with the supply for cooling the cooling fluid.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the cooling system of Klaue to have included a heat exchanger, as taught by Pogorzelski et al., in order to provide a means of controlling heat dissipation within the system.

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klaue in view of US Patent 4262789 to Collins.

Klaue describes the invention substantially as set forth above including the limitation of a cooling fluid, but lacks the limitation of the area at area sealed by the sealing member being filled with a volume of lubricating fluid.

Collins teaches in col. 1 lines 39-43 the use of a brake system including a lubricating fluid in addition to a cooling fluid.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the brake system of Klaue to have included a lubricating fluid in addition to the cooling fluid, as taught by Collins, in order to provide a means of effectively lubricating the system rather than using the cooling fluid as both a cooling and lubricating means.

***Allowable Subject Matter***

6. Claims 1-3 and 9-11 are allowed.

***Response to Arguments***

7. Applicant's arguments, see the response, filed 8/22/07, with respect to the rejection(s) of the claim(s) 1-3 and 9-11 under 35 USC 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

8. Applicant's arguments filed 8/22/07 with regards to claims 15-20 have been fully considered but they are not persuasive. Applicant argued that Klaue fails to include the limitation of a fluid flow path formed "within the circumferential wall" since the fluid flow path portions 75,78 cross through the circumferential wall in a perpendicular manner. While Examiner agrees that the fluid flow path portions that cross through the circumferential wall perpendicularly do not satisfy the limitation of being formed "around the periphery of the circumferential wall" as recited in independent claim 1, Examiner does not agree that fluid flow path portions 75,78 do not satisfy the limitation of being formed "within the circumferential wall" as recited in independent claim 15. Fluid flow path portions 75 and 78 are clearly illustrated as being formed within the circumferential wall 51. See figures 5 and 6 of Klaue. Applicant even admits on pg. 10 of the Remarks filed 8/22/07 that passages 75 and 78 "cut across the circumferential wall."

Applicant further argues that "Klaue features a spiral cooling path...that is entirely within the end walls of the housing." As pointed out above, not all portions of the Klaue cooling fluid flow path are located within the end walls as portions 75 and 78 of the cooling path are formed within the circumferential wall 51. Finally, Applicant argues that the present invention features a cooling fluid flow path that is within the circumferential wall and not the housing end walls. Examiner notes, however, that the claim language

does not preclude a portion of the fluid flow path being formed in the end walls in addition to being formed within the circumferential wall. Applicant's argument is more specific than the claim language. Accordingly, the rejections of claims 15-20 using the Klaue reference have been maintained.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mmb

October 15, 2007

*Melody M. Burch*  
**Melody M. Burch**  
**Primary Examiner**  
**Art Unit 3683**  
*10/15/07*